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### **Overview**

January 2015 in Southwest Lower Michigan was colder than normal, with near to above normal snowfall and below average water equivalent precipitation.

The month started out active as a large-scale trough settled over the Great Lakes, providing Michigan with very cold air at times and frequent Alberta Clipper weather systems with lake effect snow. Measurable snow was recorded at Muskegon and Grand Rapids for each of the first 10 days except for January 2<sup>nd</sup>. The most significant snow event occurred the evening and night of January 8<sup>th</sup> when Lake Michigan enhanced a strong clipper system. Many locations within 40 miles east of Lake Michigan received 8 to 14 inches of snow, and wind gusts of 40 to 55 mph near the lakeshore resulted in substantial blowing and drifting. Both Grand Rapids and Muskegon set daily record snowfalls on the 8<sup>th</sup>.

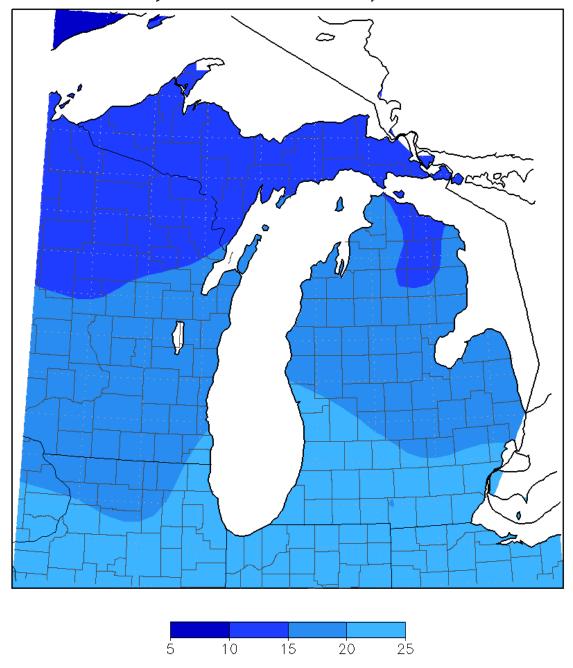
Arctic air with well below normal temperatures settled into the Great Lakes for most of the period from the 5<sup>th</sup> through the 14<sup>th</sup>. High temperatures were frequently in the teens. Calm and clear conditions on the mornings of the 13<sup>th</sup> and 14<sup>th</sup> resulted in low temperatures below zero across the area. Muskegon tied and Grand Rapids broke their record low temperatures on the 13<sup>th</sup>. Grand Rapids fell to 13 degrees below zero the morning of the 14<sup>th</sup>, its coldest temperature since 17 below zero was observed on February 4, 1996. Lansing did not set any snow or temperature records in January.

From the middle of the month onward, conditions warmed up and quieted down. Temperatures were generally near to above normal. Light snow occurred periodically, but there were only a few occasions with measurable snow.

Table 1. Reported temperature, precipitation and snowfall amounts for January 2015 at the primary climate stations in Southwest Lower Michigan and departures from normal.

Location		Average Temperature (°F)	Precipitation (inches)	Snowfall (inches)
Grand Rapids	Observed	21.2	1.87	23.2
	Departure from Normal	-3.2	-0.22	+2.4
	Normal	24.4	2.09	20.8
Lansing	Observed	20.3	1.35	11.2
	Departure from Normal	-3.1	-0.30	-2.6
	Normal	23.4	1.65	13.8
Muskegon	Observed	23.4	1.72	32.5
	Departure from Normal	-2.0	-0.31	+4.5
	Normal	25.4	2.03	28.0

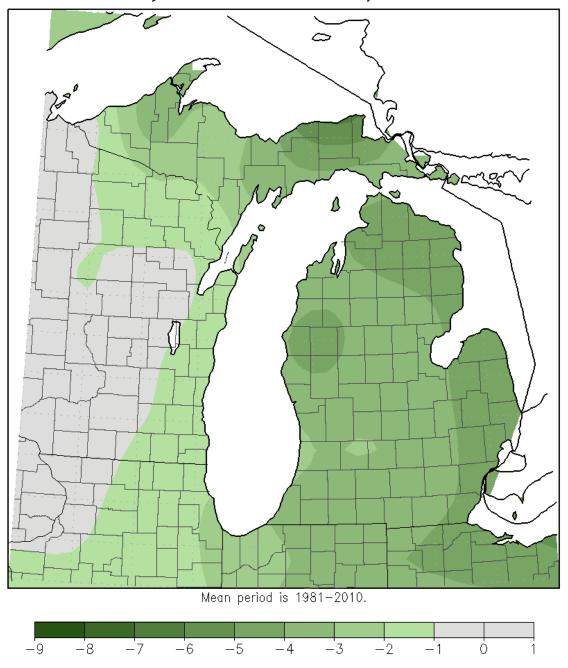
Average Temperature (°F) January 1, 2015 to January 31, 2015



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Figure 1. Average temperature (°F) for January 2015.

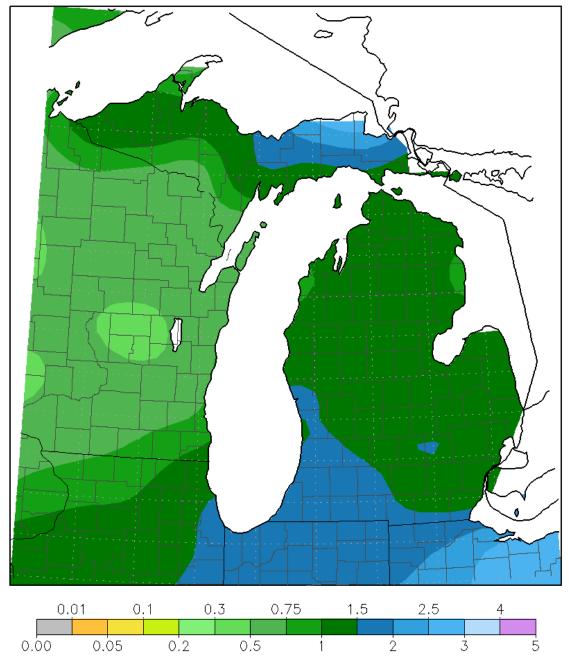
Average Temperature (°F): Departure from Mean January 1, 2015 to January 31, 2015



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Figure 2. Average temperature departure from normal (°F) for January 2015.

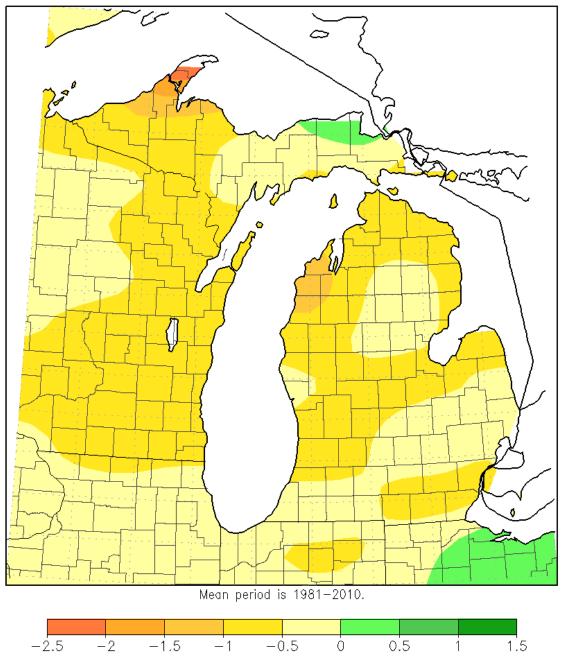
Accumulated Precipitation (in) January 1, 2015 to January 31, 2015



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Figure 3. Total precipitation (in inches) for January 2015.

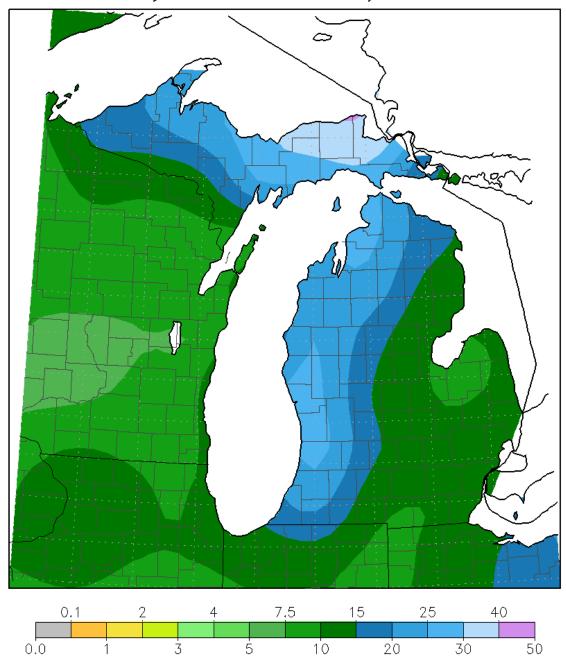
Accumulated Precipitation (in): Departure from Mean January 1, 2015 to January 31, 2015



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Figure 4. Precipitation departure from normal (in inches) for January 2015.

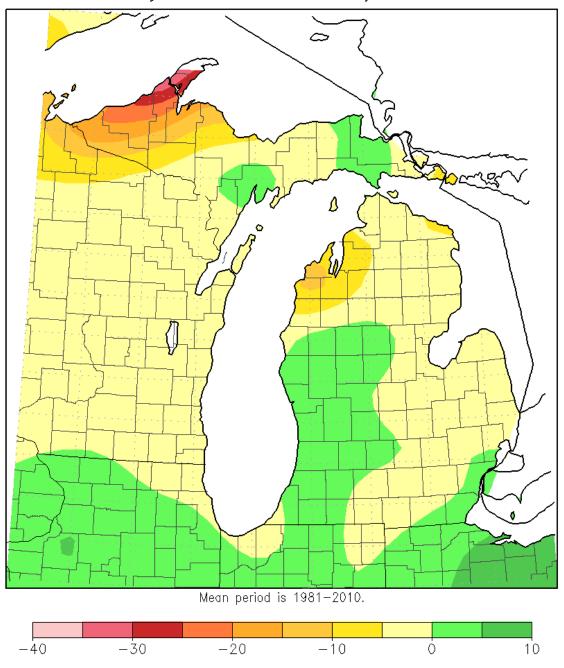
Accumulated Snowfall (in) January 1, 2015 to January 31, 2015



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Figure 5. Accumulated snowfall (in inches) for January 2015.

Accumulated Snowfall (in): Departure from Mean January 1, 2015 to January 31, 2015



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Figure 6. Snowfall departure from normal (in inches) for January 2015.